Revolution

Apple IIs are helping to teach everything from geometry to sales forecasting. This kind of versatility is one of the major reasons why Minnesota, North Carolina, and British Columbia have all adopted the Apple II as the personal computer in their educational systems.

For basic drill and practice, there's no more patient instructor than the Apple II. And for extending reasoning ability, no more demanding one. Consider the use of simulations, an Apple forte. Students step into "real-life" scenarios and, making logical choices, work through a problem. There's nothing like exploring the "what-ifs" of decision making for developing the ability to think clearly.

Even if computers didn't open up whole new ways of thinking and learning, they would belong in today's classrooms. We live in a highly automated society. Learning to use computers will soon be as essential as learning to drive a car. And the skills a student develops today will be required for occupational survival tomorrow.

To some, computers in the classroom may still seem revolutionary. But to educators, it's a revolution that can't be missed.

Ask The Expert—Your Local Apple Dealer

If you want to learn more about how you can use the Apple II Education System to advantage in your classroom, just visit your nearby dealer. Apple has a worldwide network of more than 1000 dealers and service centers. These experts are ready and able to answer your questions and meet your needs.

Tell your dealer what you want your system to do. He'll be glad to give you a personal demonstration of the Apple II's capabilities —and to show how you can help your students participate in the computer revolution.

APPLE: EXCELLENCE IN PERSONAL COMPUTERS

apple computer inc.
10260 Bandley Drive
Cupertino, California 95014

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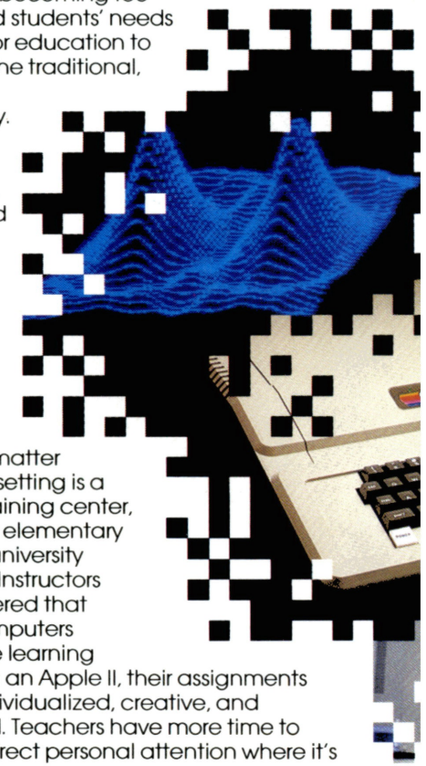
The Apple II Education System

Classrooms Will Never Be the Same

THE COMPUTER SHOP PTY. LTD.
210 Parramatta Road,
STANMORE NSW 2048 (SYDNEY)
Telephone (02) 569 5188
'THE EDUCATION SPECIALISTS'

The Necessary

Teachers, whatever their environment, agree on one thing. They can no longer do it all. Subjects are becoming too complex and students' needs too diverse for education to continue in the traditional, labor-intensive way. There has to be a new approach. A sophisticated approach. That's why so many educators have turned to the Apple II personal computer.



It doesn't matter whether the setting is a corporate training center, an inner-city elementary school, or a university science lab. Instructors have discovered that personal computers transform the learning process. With an Apple II, their assignments are more individualized, creative, and open-ended. Teachers have more time to teach—to direct personal attention where it's most needed.

With the Apple II in a classroom, students have a greater desire to learn. The brightest can be stretched to their limits. Slower ones can be encouraged to start moving. And for the first time, the handicapped can participate at their own pace—an important consideration in mainstreaming and special education programs.

Apple II: The Teacher's Toolbox

Apple has been committed to serving education needs from the start. That's why so many of the Apple II's features were designed with the classroom in mind.

Simple Operation

Unfamiliar with personal computers? The Apple II won't confound or confuse you—or your students. You'll get comfortable with it in afternoon's practice. And you'll have fun while you learn, too.

Effective Reinforcement

Any personal computer gives a student one-to-one focus and instantaneous feedback. But Apple does more, with attention-getting sound and dazzling color. Like motivating a youngster's interest with colorful animations, or rewarding correct answers with a burst of music. And for older students trying to visualize complex engineering and mathematical problems, Apple's high-resolution graphics provide a real conceptual advantage.

Fluent in Five Languages

The Apple II speaks Apple's powerful versions of five major computer languages: BASIC, Pascal, FORTRAN, PILOT, and assembly language. This flexibility is one reason why computer science teachers so often choose Apples for their classes. Cost effectiveness is another reason. The Apple II system is equally valuable in engineering, mathematics, or science courses —where students may be solving elementary problems in BASIC, or developing complete application programs in Pascal or FORTRAN.

A Versatile Aid

For many teachers, Apple PILOT has opened up a whole new realm of instructional possibilities. This powerful language system offers easy-to-use color graphics, sound effects, and a character set editor. It was designed specifically to support Computer Assisted Instruction (CAI).

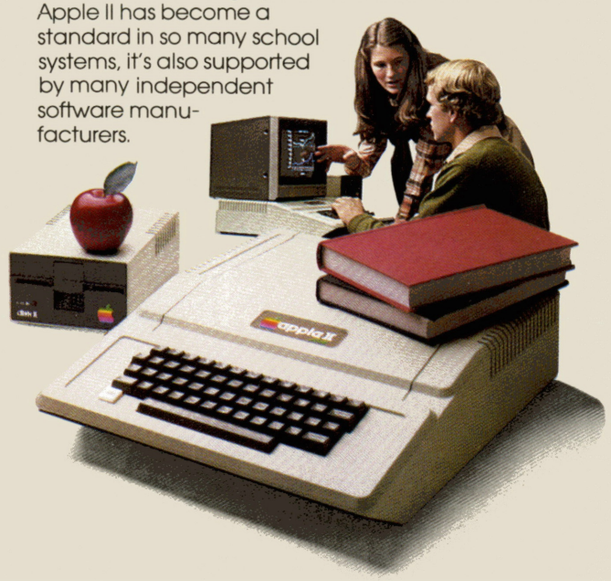
To use Apple PILOT effectively requires some training and practice. But you don't need an extensive knowledge of programming. With Apple PILOT you can develop courseware, create and customize lessons, and even keep track of student response time and grades. Equally important, you can access the vast library of PILOT programs already available.

System Flexibility

Apple IIs can connect to existing computer networks. This means that courseware developed on an Apple by one instructor can be transmitted to and stored on a timesharing system, where it becomes readily available to others. And users in different schools or towns can all access the same library of programs.

Plenty of Programs

Apple offers a variety of educational software, from programs teaching music theory fundamentals to easy-to-use programming "shells" that let you build quizzes with exciting sound effects and graphics. And because the Apple II has become a standard in so many school systems, it's also supported by many independent software manufacturers.



Enroll An Apple On Your Campus

The versatility and power of the Apple II enhances any educational environment, from elementary to college level. Consider these reasons to enroll an Apple II in your school:

Affordability. For less than the cost of timesharing terminals, your students can be equipped with individual computers. In this way students can not only work independently, but also spend as much time "on-line" as they want.

Reliability. Apples are sturdy, and built to take classroom abuse. And each system is backed with a full, 90-day warranty on parts and labor.

Portability. The Apple II weighs only 11 pounds, and can go anywhere there's an electrical outlet. You can move your Apple from classroom to classroom, take it with you on a field trip, or bring it home to use on the weekends.

Expandability. The Apple II's built-in expansion slots let you easily add the Apple peripherals and accessories you want, when you want them. And the Apple II is compatible with products made by over 170 independent manufacturers —so you get added variety and value.

Service. Apple II servicing is fast and convenient, through hundreds of local service centers. Over 600 service centers are ready to help you. In addition, Apple's special Extended Warranty allows you to keep all maintenance costs up front, where you can budget for them.

Educational Software Development Configurations

	Language			
Hardware	BASIC	PILOT	Pascal	FORTRAN
Apple System	II/II Plus	II/II Plus	II/II Plus	II/II Plus
User Memory (RAM)	32K	48K**	48K	48K
Firm-ware	BASIC Cards*	BASIC Cards*	Language Card	Language Card
Disk II Drives	1	1 or 2**	1***	1***

BASIC Program Listing

```
]LOAD DEMO2
]LIST

 250 REM  HERE IS A PROGRAM
 260 REM  TO PLOT A POINT
 270 REM  ON THE SCREEN
 280 REM  SET GRAPHICS MODE
 290 GR
 300 REM  CHOOSE A COLOR
 310 COLOR=1
 320 REM  READ PADDLE ZERO
 330 X = PDL(0)
 340 REM  DIVIDE BY 7 SO MAXIMUM
     VALUE OF X IS 36
 350 X = X / 7
 360 REM  READ PADDLE ONE
 370 Y = PDL(1)
 380 REM  LIMIT RANGE OF Y
     TO 0-47
 390 Y = Y / 7
 400 REM  PLOT THE POINT
 410 PLOT X,Y
 420 GOTO 320
]
```

Pascal Program Listing

```
PROCEDURE DRAWCHARS;
VAR HORIZ,VERT,ASCII: INTEGER;
BEGIN
  INITTURTLE;
  ASCII:=0;
  FOR VERT:=0 TO 18 DO
    BEGIN
      MOVETO(0,180-VERT*10);
      FOR HORIZ:=0 TO 39 DO
        BEGIN
          WCHAR(CHR(ASCII));
          ASCII:=(ASCII+1) MOD 128;
        END;
    END;
  WAIT(2000);
END;
```

Hi-Res Graphics

* Apple II systems are supplied with Integer BASIC, Apple II Plus with Applesoft (Floating-Point) BASIC; firmware cards allow you to add the alternative BASIC to either system.

** Requires one drive for student use, two drives for creating courseware.

*** Two drives are recommended.